A Maze Game Created in Scratch

http://cs.oregonstate.edu/~mjb/scratch

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Events

- when clicked
- when space key pressed
- when this sprite clicked
- when backdrop switches to backdrop1
- broadcast message1
- when I receive message1
Data
Control

```
wait 1 secs
repeat 10
  when I start as a done
  forever
    create clone of myself
  delete this done
if then
  wait until
if then else
  repeat until
```
Sensing

touching mouse-pointer ?
touching edge ?
touching color ?
distance to mouse-pointer
key space pressed?
mouse down?
mouse x mouse y
x position of Sprite1
y position of Sprite1
direction of Sprite1
size of Sprite1
Operators

pick random 1 to 10

< = >

and or not

sin ▼ of 9
cos ▼ of 9
Motion

move 10 steps

turn ↫ 15 degrees  turn ↩ 15 degrees

point in direction 90°

point towards mouse-pointer

go to mouse-pointer

go to random position

change x by 10  change y by 10

set x to 0  set y to 0

if on edge, bounce
Scratch Handles the Directions you are Going Like a Compass Does
The Maze
Soccer Ball

- When clicked:
  - Go to x: 0 y: 150
  - Show
  - Set MaximumClones to 3
  - Repeat MaximumClones
    - Create clone of myself
  - Hide

- When I start as a clone:
  - Go to x: pick random 75 to 125 y: pick random 70 to 150
  - Point in direction 90 * round pick random -0.49 to 2.49
  - Forever
    - Repeat until touching color "red"
      - Move 1 steps
      - If on edge, bounce
    - Point in direction direction + 180
    - Move 5 steps
    - Point in direction 90 * round pick random -0.49 to 3.49

- Start up all the soccer balls
- Start up one soccer ball
- Pick a random start point and a starting direction
- Keep moving until we hit a red wall
- Bounce in a random direction
Dog – top code

Start over by going back to the Start-point

Right-arrow

Decide that we have won by reaching the exit

Up-arrow
Dog – bottom code

play sound pop
move -2 * Speed steps

when up arrow key pressed
point in direction 0
repeat until not key up arrow pressed? or touching color ?
move Speed steps

if touching color ? then
play sound pop
move -2 * Speed steps

when down arrow key pressed
point in direction 180
repeat until not key down arrow pressed? or touching color ?
move Speed steps

if touching color ? then
play sound pop
move -2 * Speed steps

when clicked
forever
wait until touching Ball-Soccer ?
play sound laugh-male2
broadcast StartOver

Decide that we have been eaten by a soccer ball